

Exploring the Extreme			
2008 Mathematics			
Content Standards			
Wyoming Mathematics			
Grade K			
Activity/Lesson	State	Standards	
Finding the Center of Gravity Using Rulers	WY	MA.K.MAK.3.1	Students apply estimation and measurement of length to content problems using non-standard units up to 9 units.
Finding the Center of Gravity Using Rulers	WY	MA.K.MAK.5.2	Students communicate conclusions from a set of data. (Which set has more or less?)
Exploring the Extreme			
2008 Mathematics			
Content Standards			
Wyoming Mathematics			
Grade 1			
Activity/Lesson	State	Standards	
Finding the Center of Gravity Using Rulers	WY	MA.1.MA1.1.6	Students communicate their choice of appropriate grade level procedures and results when performing operations in a problem-solving situation.
Finding the Center of Gravity Using Rulers	WY	MA.1.MA1.3.1	Students apply estimation and measurement of length to content problems using non-standard units up to 99 units.
Finding the Center of Gravity Using Rulers	WY	MA.1.MA1.3.2	Students apply estimation and measurement of capacity to content problems using non-standard units.
Exploring the Extreme			
2008 Mathematics			
Content Standards			
Wyoming Mathematics			
Grade 2			
Activity/Lesson	State	Standards	
Finding the Center of Gravity Using Rulers	WY	MA.2.MA2.1.7	Students communicate their choice of appropriate grade level procedures and results when performing operations in a problem-solving situation.
Finding the Center of Gravity Using Rulers	WY	MA.2.MA2.2.3	Students select, use, and communicate organizational methods in problem- solving situations with 2- and 3- dimensional objects.
Finding the Center of Gravity Using Rulers	WY	MA.2.MA2.3.1	Students apply estimation and measurement of length to content problems using standard units to the nearest inch.
Exploring the Extreme			
2008 Mathematics			
Content Standards			
Wyoming Mathematics			

Grade 3			
Activity/Lesson	State	Standards	
Finding the Center of Gravity Using Rulers	WY	MA.3.MA3.3.1	Students apply estimation and measurement of length to content problems using actual measuring devices and express the results in U.S. customary units (inches, feet, and yards).
Finding the Center of Gravity Using Plumb Lines	WY	MA.3.MA3.4.2	Students apply knowledge of appropriate grade level patterns when solving problems.
Changing the Center of Gravity Using Moment Arms	WY	MA.3.MA3.1.6	Students make an organized list and break problems into parts as strategies to solve problems.
Changing the Center of Gravity Using Moment Arms	WY	MA.3.MA3.3.1	Students apply estimation and measurement of length to content problems using actual measuring devices and express the results in U.S. customary units (inches, feet, and yards).
Changing the Center of Gravity Using Moment Arms	WY	MA.3.MA3.4.1	Students recognize, describe, create, and extend patterns by using manipulatives, numbers, and graphic representations.
Exploring the Extreme			
2008 Mathematics			
Content Standards			
Wyoming Mathematics			
Grade 4			
Activity/Lesson	State	Standards	
Finding the Center of Gravity Using Rulers	WY	MA.4.MA4.2.3	Students select, use, and communicate organizational methods in problem-solving situations appropriate to grade level.
Finding the Center of Gravity Using Rulers	WY	MA.4.MA4.3.1	Students select and apply appropriate U.S. customary units (half inch, quarter inch, feet, and yards) to the estimation and measurement of length in real-world problems using actual measuring devices.
Finding the Center of Gravity Using Rulers	WY	MA.4.MA4.3.2	Students select and apply appropriate U.S. customary units (ounces and pounds) to the estimation and measurement of weight in real-world problems using actual measuring devices.
Finding the Center of Gravity Using Plumb Lines	WY	MA.4.MA4.2.3	Students select, use, and communicate organizational methods in problem-solving situations appropriate to grade level.
Finding the Center of Gravity Using Plumb Lines	WY	MA.4.MA4.3.1	Students select and apply appropriate U.S. customary units (half inch, quarter inch, feet, and yards) to the estimation and measurement of length in real-world problems using actual measuring devices.

Finding the Center of Gravity Using Plumb Lines	WY	MA.4.MA4.3.2	Students select and apply appropriate U.S. customary units (ounces and pounds) to the estimation and measurement of weight in real-world problems using actual measuring devices.
Finding the Center of Gravity Using Plumb Lines	WY	MA.4.MA4.4.2	Students apply knowledge of appropriate grade level patterns when solving problems.
Finding the Center of Gravity Using Plumb Lines	WY	MA.4.MA4.4.3	Students explain a rule given a pattern or sequence.
Changing the Center of Gravity Using Moment Arms	WY	MA.4.MA4.2.3	Students select, use, and communicate organizational methods in problem-solving situations appropriate to grade level.
Changing the Center of Gravity Using Moment Arms	WY	MA.4.MA4.3.1	Students select and apply appropriate U.S. customary units (half inch, quarter inch, feet, and yards) to the estimation and measurement of length in real-world problems using actual measuring devices.
Changing the Center of Gravity Using Moment Arms	WY	MA.4.MA4.3.2	Students select and apply appropriate U.S. customary units (ounces and pounds) to the estimation and measurement of weight in real-world problems using actual measuring devices.
Changing the Center of Gravity Using Moment Arms	WY	MA.4.MA4.4.1	Students recognize, describe, extend, create, and generalize patterns by using manipulatives, numbers, and graphic representations.
Exploring the Extreme			
2008 Mathematics			
Content Standards			
Wyoming Mathematics			
Grade 5			
Activity/Lesson	State	Standards	
Jet Propulsion	WY	MA.5.MA5.2.1	Students describe, draw, and classify two-dimensional geometric figures such as triangles, quadrilaterals, and circles.
Jet Propulsion	WY	MA.5.MA5.2.4	Students select, use, and communicate organizational methods in problem-solving situations appropriate to grade level.
Vectoring	WY	MA.5.MA5.2.4	Students select, use, and communicate organizational methods in problem-solving situations appropriate to grade level.
Center of Gravity, Pitch, Yaw	WY	MA.5.MA5.1.2	Students demonstrate computational fluency with basic facts for all four operations, including identifying multiples and factors of designated numbers up to 100.

Center of Gravity, Pitch, Yaw	WY	MA.5.MA5.1.4	Students explain their choice of estimation or problem-solving strategies and justify results when performing number operations in problem-solving situations.
Center of Gravity, Pitch, Yaw	WY	MA.5.MA5.3.1	Students apply estimation and measurement of length to content problems using actual measuring devices and express the results in U.S. customary units (parts of inch-halves/fourths, eights inches, feet, yards, and miles).
Center of Gravity, Pitch, Yaw	WY	MA.5.MA5.3.3	Students apply estimation and measurement of capacity in real-world problem-solving situations using actual measuring devices and express the results in U.S. customary units (teaspoons, tablespoons, cups, pints, quarts, and gallons).
Exploring the Extreme			
2008 Mathematics			
Content Standards			
Wyoming Mathematics			
Grade 6			
Activity/Lesson	State	Standards	
Jet Propulsion	WY	MA.6.MA6.2.3	Students communicate the reasoning used in identifying geometric relationships in problem-solving situations appropriate to grade level.
Jet Propulsion	WY	MA.6.MA6.5.2	Students, given a scenario, recognize and communicate the likelihood of events using concepts from probability (i.e., impossible, equally likely, certain) appropriate to grade level.
Vectoring	WY	MA.6.MA6.2.3	Students communicate the reasoning used in identifying geometric relationships in problem-solving situations appropriate to grade level.
Center of Gravity, Pitch, Yaw	WY	MA.6.MA6.3.1	Students apply estimation and measurement of length to content problems and express the results in metric units (centimeters and meters).
Center of Gravity, Pitch, Yaw	WY	MA.6.MA6.3.2	Students apply estimation and measurement of weight to content problems and express the results in U.S. customary units (ounces, pounds, and tons).
Exploring the Extreme			
2008 Mathematics			
Content Standards			
Wyoming Mathematics			
Grade 7			
Activity/Lesson	State	Standards	

Jet Propulsion	WY	MA.7.MA7.2.3	Students communicate the reasoning used in identifying geometric relationships in problem-solving situations appropriate to grade level.
Jet Propulsion	WY	MA.7.MA7.4.3	Students evaluate algebraic expressions and formulas, using order of operations, given positive integer values for variables.
Vectoring	WY	MA.7.MA7.2.3	Students communicate the reasoning used in identifying geometric relationships in problem-solving situations appropriate to grade level.
Center of Gravity, Pitch, Yaw	WY	MA.7.MA7.1.4	Students explain their choice of estimation and problem-solving strategies and justify results when performing number operations with fractions and decimals in problem-solving situations appropriate to grade level. Students add and subtract fractions and mixed numbers.
Center of Gravity, Pitch, Yaw	WY	MA.7.MA7.3.1	Students apply estimation and measurement of length to content problems and convert within the U.S. customary (in, ft, yd, mi) and within the metric system (mm, cm, m, km).
Center of Gravity, Pitch, Yaw	WY	MA.7.MA7.3.2	Students apply estimation and measurement of weight to content problems expressing the results in metric units (g, kg).
Fuel Efficiency	WY	MA.7.MA7.1.4	Students explain their choice of estimation and problem-solving strategies and justify results when performing number operations with fractions and decimals in problem-solving situations appropriate to grade level. Students add and subtract fractions and mixed numbers.
Fuel Efficiency	WY	MA.7.MA7.3.1	Students apply estimation and measurement of length to content problems and convert within the U.S. customary (in, ft, yd, mi) and within the metric system (mm, cm, m, km).
Fuel Efficiency	WY	MA.7.MA7.3.2	Students apply estimation and measurement of weight to content problems expressing the results in metric units (g, kg).
Fuel Efficiency	WY	MA.7.MA7.4.3	Students evaluate algebraic expressions and formulas, using order of operations, given positive integer values for variables.
Exploring the Extreme			
2008 Mathematics			
Content Standards			
Wyoming Mathematics			
Grade 8			

Activity/Lesson	State	Standards	
Jet Propulsion	WY	MA.8.MA8.2.4	Students communicate the reasoning used in identifying geometric relationships in problem-solving situations appropriate to grade level.
Jet Propulsion	WY	MA.8.MA8.5.4	Students communicate about the likelihood of events using concepts from probability such as impossible, equally likely and certain appropriate to grade level.
Vectoring	WY	MA.8.MA8.2.4	Students communicate the reasoning used in identifying geometric relationships in problem-solving situations appropriate to grade level.
Vectoring	WY	MA.8.MA8.3.3	Students select and use the appropriate methods, tools, and units to solve problems involving angle measure, perimeter, circumference, area (including circles), and volume of rectangular solids.
Vectoring	WY	MA.8.MA8.5.4	Students communicate about the likelihood of events using concepts from probability such as impossible, equally likely and certain appropriate to grade level.
Center of Gravity, Pitch, Yaw	WY	MA.8.MA8.1.3	Students explain their choice of estimation and problem- solving strategies and justify results of solutions in problem-solving situations involving rational numbers.
Center of Gravity, Pitch, Yaw	WY	MA.8.MA8.3.1	Students apply estimation and measurement of weight/mass to content problems and convert within U.S. customary and within metric units (mg, g, kg).
Fuel Efficiency	WY	MA.8.MA8.1.3	Students explain their choice of estimation and problem- solving strategies and justify results of solutions in problem-solving situations involving rational numbers.
Fuel Efficiency	WY	MA.8.MA8.2.3	Students use geometric formulas including the Pythagorean Theorem.
Fuel Efficiency	WY	MA.8.MA8.3.1	Students apply estimation and measurement of weight/mass to content problems and convert within U.S. customary and within metric units (mg, g, kg).
Fuel Efficiency	WY	MA.8.MA8.4.2	Students solve one- and two- step linear equations each with an integer coefficient and integer solutions.
Fuel Efficiency	WY	MA.8.MA8.4.3	Students evaluate algebraic expressions and formulas given integer values for variables.